Innovative technologies as means of increase in efficiency of social and economic development

Bozhko V.P.
Doctor of Technical Sciences,
Professor of the Department of Technology of Production of Aircrafts,
National Aerospace University “Kharkiv Aviation Institute”

The article is devoted to the analysis of innovation as a means of improving the efficiency of the economic activity of economic entities. It provides an overview of solving innovative problems in historical perspective. In particular, considered the work of D. Ricardo, focused innovations in agriculture; K. Marx, who believed innovation any improvement that keeps the terms of operation of machines; Ben-Baverka regarding the impact of technological innovations on the duration of the production. Also considered the work of K. Wicksell, who brought the mathematical proof that any innovation does not always affect the wage boards.

Ukrainian scholar M. Tugan-Baranovsky believed that production expanded in the years the rise not because in this period of growing consumption, and vice versa – the consumption increases, because expanding production.

In the late 20th century have spread management innovation, the most effective is the experience of innovation management, which has accumulated over the years in the United States and other countries. Recently, a common practice when in the process of creation and innovation combines two activities: financial and innovative entrepreneurial activity, so the business entities are divided into the company of risk capital and small innovative firms. For example, in the United States at the beginning of 90 years of operating at 200 such firms, half of which have their own assets volume of 100 million dollars.

With the American experience follows that the period of formation of innovative firms lasts an average of 5-7 years later in about 20% of small firms is converted in large corporations, 60% of the 'absorbed' stronger competitors, and 20% are bankrupt. At 75% of the innovations created by firms with a number of employees up to one thousand people.

American corporations pay much attention to the quality of the innovative projects. When arranging the release of odnomanitnoi products all research work concentrated in autonomous research center, at the same time when diversifying production creates a decentralized research structure. In this regard, a certain positive role played created in Ukraine in the 1991-1992 years, industry and functional Academy of Sciences, as well as new scientific and technical education in the form of small innovative firms, consulting companies, scientific and technological cooperative, temporary creative groups, etc.

Based on the world experience, you can form the basic requirements of the State innovation policy:

– focus on the development of entrepreneurship entrepreneurs-innovators;
– support along with the radical innovation of minor decisions both in high and in conventional technologies;
– resources the needs of priority areas of socio-economic development: resource; production and storage of food products; protection of human health; preservation of the environment, etc.;
– forming and keeping highly professional scientific and technical potential and managerial staff.

The latter requirement includes establishments that provide appropriate quality of human potential: for example in our business working at 85% of people with higher education. However, young entrepreneurs so far no clear orientation on industrial activity, that is for them the priority areas are trade and catering (50%), as well as banking and insurance business (20%).

The main reason for this is the lack of real support for youth to work in manufacturing, and innovative production in particular. Efficiently solve this problem may be due to the creation of a network of scientific and educational centers, which would have United the corresponding scientific institutions, universities and high schools, colleges and lyceums of the specialized. You also need to radically expand the internship students in foreign universities and leading companies of the corresponding profile.

At the end of the article are features of the progressive technique using pulsed energy sources that are suggested and investigated in the 60 years of the last century Professor KHAIV. V. Kononenko and his disciples.